REMARKS

This Application has been carefully reviewed in light of the Final Office Action mailed May 18, 2004. In order to advance prosecution of this case, Applicants amend Claims 1, 12, 18, 21, 26, 31, 36, and 37. Applicants respectfully request reconsideration and favorable action in this case.

Interview Summary

Applicants' Attorney, Mr. Todd A. Cason (Reg. No. 54,020), conducted a telephonic interview with Examiner Odland on July 12, 2004. Applicants submit this summary of the telephonic interview to record Applicants' understanding of the substance of the interview. If Applicants' understanding is inaccurate, notice of such is appreciated.

Applicants thank the Examiner for the courtesy and opportunity to conduct the telephonic interview. During the interview, the Examiner and Applicants' Attorney discussed the Examiner's rejections of Applicants' claims. Although the Examiner and Applicants' Attorney reached no firm conclusions or agreements regarding the claims, the Examiner suggested claim language that might, according to the Examiner, further clarify the meaning of Applicants' claims.

Section 102 Rejections

The Examiner rejects Claims 1-2, 4-5, 7, 9-12, 16-18, 21-25, and 36-37 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,101,198 issued to Koenig et al. ("*Koenig*"). As amended, Claim 1 recites:

> A time slot interchanger (TSI) for a telecommunications node, comprising:
>   an exchange memory comprising a plurality of exchange memory slots, each exchange memory slot sized to store a traffic channel and comprising a plurality of discretely addressable fields sized to store a sub-channel; and
>   a controller operable in response to predefined switching instructions to determine that at least a first channel is sub-utilized, to write a sub-channel received in the first channel to a first field in a memory slot in response to determining that the first channel is sub-utilized, and to write a sub-channel received in a second channel to a second field in the memory slot, so that the sub-channel written to the first field and the sub-channel written to the second field may be read from the memory slot as a single traffic channel.

Koenig fails to recite, either expressly or inherently, every element of Claim 1. *Koenig* fails to disclose a controller operable "to determine that at least a first channel is sub-utilized" and "to write a sub-channel received in the first channel to a first field in a memory slot in response to determining that the first channel is sub-utilized" as recited by Claim 1. *Koenig* does not discuss sub-utilized channels or any manner of determining that a channel is sub-utilized. Moreover, *Koenig* is limited to a system that interchanges the time-slots of particular portions of received traffic by reading traffic from an input buffer in either a sequential or a non-sequential manner, and then writing the traffic to an output buffer in the opposite manner. Col. 16,

ll. 27-30. Thus, *Koenig* also does not disclose a controller operable "to write a sub-channel received in the first channel to a first field in a memory slot in response to determining that the first channel is sub-utilized" as recited by Claim 1.

As a result, *Koenig* does not recite, expressly or inherently, every element of amended Claim 1. Claim 1 is thus allowable for at least this reason. Applicants respectfully request reconsideration and allowance of Claim 1 and its dependents.

Although of differing scope from Claim 1, Claims 12, 18, and 36 include elements that, for reasons substantially similar to those discussed with respect to Claim 1, are not recited, expressly or inherently, by *Koenig*. Claims 12, 18, and 36 are thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claims 12, 18, and 36, and their respective dependents.

As amended Claim 21 recites:

> A method for processing traffic in a time slot interchanger (TSI) comprising:
> receiving a traffic stream comprising a plurality of traffic channels;
> writing each traffic channel to a memory slot in an exchange memory;
> reading a traffic channel stored in a memory slot;
> modifying data values of data included in the traffic channel to generate a modified traffic channel; and
> writing the modified traffic channel to a memory slot.

Koenig also does not disclose every element of Claim 21. In rejecting this claim, the Examiner asserts that "the time slots of the T1 signals that comprise each frame stored in the ODD and EVEN buffers are interchanged (modified) and a newly

interchanged frame is output from the OUPUT [sic] buffer (see figure 15 and claim 14)[.]" *Office Action*, p. 8. Although Applicants contest the Examiner's reading of *Koenig*, even according to the Examiner's reading *Koenig* is limited to a device that interchanges the data included in the traffic channel. Thus, *Koenig*, even according to the Examiner's reading merely modifies the order of data in the traffic channel. *Koenig*, however, does not "modify[] data values of data included in the traffic channel" as recited by amended Claim 21.

Thus, *Koenig* does not recite, either expressly or inherently, every element of amended Claim 21. Claim 21 is thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claim 21 and its dependents.

Although of differing scope from Claim 21, Claim 37 includes elements that, for reasons substantially similar to those discussed with respect to Claim 27, are not recited, either expressly or inherently, by *Koenig*. Claim 37 is thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claim 37.

Section 103 Rejections

The Examiner rejects Claims 3, 8, 13-14, and 27-28 under 35 U.S.C. § 103(a) as being unpatentable over *Koenig* in view of U.S. Patent No. 5,768,257 issued to Khacherian et al. ("*Khacherian*"). Claims 3 and 8 depend from Claim 1, which has been shown above to be allowable. Claims 13-14 depend from Claim 12, which has been shown above to be allowable. Claims 27-28 depend from Claim 26, which has been shown above to be allowable. Claims 3, 8, 13-14, and 27-28 are thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claims 3, 8, 13-14, and 27-28.

The Examiner rejects Claims 19-20, 26, and 30-35 under 35 U.S.C. § 103(a) as being unpatentable over *Koenig*. Claims 19-20 depend from Claim 18, which has been shown above to be allowable. Claims 19-20 are thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claims 19-20.

As amended, Claim 26 recites:

> A system for time division multiplex (TDM) switching of traffic in a telephone node, comprising:
> a computer-readable medium; and
> software stored in the computer-readable medium, the software operable to receive a traffic stream comprising a plurality of traffic channels comprising discreet sub-channels, to determine that at least a first traffic channel that includes a first sub-channel is sub-utilized, to write the first traffic channel to a first memory slot in an exchange memory, to write a second traffic channel that includes a second sub-channel to a second memory slot in an exchange, to write the first sub-channel to the first field in the third memory slot in response to determining that the first channel is sub-utilized, to write the second sub-channel to a

second field in the third memory slot, and to read the sub-channels from the third memory slot to an egress time slot.

Koenig does not disclose, teach, or suggest every element of Claim 26. As suggested above, *Koenig* does not disclose software operable "to determine that at least a first channel . . .is sub-utilized" and "to write a sub-channel received in the first channel to a first field in a memory slot in response to determining that the first channel is sub-utilized" as recited by Claim 26. The Examiner asserts that:

> *Koenig* does not disclose that the system is implemented in software stored on a computer readable medium. It would have been obvious to one skilled in the art at the time of the invention to implement the Koenig system in this manner because the developmental costs of a software implementation are less that that of a hardware based implementation. Furthermore, software is easier to upgrade than hardware.

Although Applicants dispute these assertions, even assuming for the sake of argument that these statements are true, the statements do not correct the omissions of *Koenig* identified above.

As a result, *Koenig* fails to disclose, teach, or suggest every element of Claim 26. Claim 26 is allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claim 26 and its dependents.

As amended, Claim 31 recites:

> A system for processing traffic in a time slot interchanger (TSI) comprising:
> a computer-readable medium; and
> software stored in the computer-readable medium, the software operable to receive a traffic stream comprising a plurality of traffic channels, to write each traffic channel to a memory slot in an exchange memory, to read a traffic channel stored in a memory slot, to modify data values of data included in the traffic channel, to generate a modified traffic channel, and to write the modified traffic channel to a memory slot.

Koenig does not disclose, teach, or suggest every element of Claim 31. As suggested above, *Koenig* does not disclose software operable "to modify data values of data included in the traffic channel" as recited by amended Claim 31. As noted above in the discussion of Claim 26, the Examiner asserts that:

> *Koenig* does not disclose that the system is implemented in software stored on a computer readable medium. It would have been obvious to one skilled in the art at the time of the invention to implement the Koenig system in this manner because the developmental costs of a software implementation are less that that of a hardware based implementation. Furthermore, software is easier to upgrade than hardware.

Although Applicants again dispute these assertions, even assuming for the sake of argument that these statements are true, the statements also do not correct the omissions of *Koenig* identified above with respect to Claim 31.

As a result, *Koenig* does not disclose, teach, or suggest every element of Claim 31. Claim 31 is thus allowable for at

least these reasons. Applicants respectfully request reconsideration and allowance of Claim 31 and its dependents.

The Examiner rejects Claims 6, 15, and 29 under 35 U.S.C. § 103(a) as being unpatentable over *Koenig* in view of U.S. Patent No. 5,883,902 issued to Willie et al. ("*Willie*"). Claims 6, 15, and 29 depend from Claims 1, 12, and 26, respectively, which have all been shown above to be allowable. Claims 6, 15, and 29 are thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claims 6, 15, and 29.

Conclusions

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending Claims. If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned attorney for Applicants stands ready to conduct such a conference at the convenience of the Examiner.

No fees are believed to be due, however, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

                        Respectfully submitted,

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